

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

INTELLIGENT WATER SOLUTIONS, LLC §
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Plaintiff §
 §
 §
vs. § Case No. 2:16-cv-00689-JRG
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KOHLER CO., §
 §
 §
Defendant. §

PLAINTIFF'S OPENING CLAIM CONSTRUCTION BRIEF

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Pursuant to the Court’s Second Amended Docket Control Order (Doc. No. 54), Plaintiff Intelligent Water Solutions, LLC (“IWS” or “Plaintiff”) hereby files this Opening Claim Construction Brief.

I. BACKGROUND

Plaintiff alleges that Kohler Co. (“Kohler” or “Defendant”) infringes one or more claims of U.S. Patent No. 6,286,764 (the “764 patent”) (Ex. 1) through their implementation of electronic showering and bathing systems. The ’764 patent generally relates to a fluid delivery system that controls temperature, flow rate, and volume at a system outlet by using various valves and accompanying actuators to regulate respective flows of hot and cold fluids and a resultant mixed flow at an outlet of the system. A user interface is included with the system for selecting and monitoring fluid parameters. Additionally, the claimed system can include a remote device for monitoring and controlling the fluid parameters and an external data storage and input means for transferring data related to fluid parameters to the system.

II. LEGAL PRINCIPLES OF CLAIM CONSTRUCTION

As the Court is well aware, a district court should construe the claims in light of their explicit language as informed by the intrinsic record, namely, the patent’s specification, figures, and prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979-980 (Fed. Cir. 1995).

The specification is the “best source for understanding a technical term,” to be supplemented, “as needed, by the prosecution history.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005). The prosecution history represents key evidence of how the examiner and the inventor construed the patent. *See Lemelson v. Gen. Mills, Inc.*, 968 F.2d 1202, 1206 (Fed. Cir. 1992). Claims should generally be interpreted in a manner consistent with other claims, as well as with the prosecution history. *See Bell Howell Document Mgmt. Prods. Co. v. Altek Sys.*, 132 F.3d

701, 706-707 (Fed. Cir. 1998). Moreover, claim terms in patents sharing a common specification and application should usually be given the same interpretation. *See NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005), *rehearing en banc denied*. It is improper to confine a claim to a particular embodiment; the claim language itself is paramount. *See Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1370 (Fed. Cir. 2008); *accord Phillips*, 415 F.3d at 1325. Extrinsic evidence may also be relevant to claim construction. *See Id.* at 1317. Such evidence consists of all evidence extrinsic to the patent and its prosecution history, including “expert and inventor testimony, dictionaries, and learned treatises.” *Id.* (internal quotation omitted). While authorizing examination of extrinsic evidence, the Federal Circuit has warned that, while it “can shed useful light on the relevant art,” it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Id.*

III. ARGUMENT

The Court should interpret each disputed claim term according to its plain and ordinary meaning. The Asserted Claims are understandably written and the underlying technology is neither obscure nor exceedingly complex. The Court need not rewrite the claims as proposed by Defendant. Claim construction is not an exercise in substituting new words for clear claim language, particularly when, as here, Defendant’s proposed constructions would change the meaning and scope of the claims. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (claim construction is appropriate to “clarify and when necessary to explain what the patentee covered by the claims,” but is not an “obligatory exercise in redundancy”); *see also Autogiro Co. of Am. v. United States*, 384 F.2d 391, 396 (Ct. Cl. 1967) (“Courts can neither broaden nor narrow the claims”). For the reasons set forth below, the Court should adopt Plaintiff’s proposed constructions for each of the disputed claim terms.

A. “fluid supply control valve”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“fluid supply control valve” (Claims 1, 26)	Plain and ordinary meaning Or, in the alternative: Valve which regulates flow from a fluid supply	Electronically-controlled valve capable of opening and closing smoothly, rapidly, and with adequate precision to achieve fine control of fluid supply

The Court should construe “fluid supply control valve” in accordance with its plain and ordinary meaning. The Federal Circuit has explained that “[i]n some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1314. Here, the disputed phrases have a plain meaning easily understood by persons of ordinary skill and lay judges and jurors, as the meanings of “fluid supply” and “control valve” are manifest. In fact, Defendant incorporates every word of the disputed term into its construction and simply adds extraneous language around those words in an attempt to narrow the term’s plain meaning.

Defendant’s attempt to narrow the meaning in this manner is improper as claim construction begins and ends in all cases with the actual words of the claim. *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001). Yet, Defendant’s construction blatantly imports limitations that are absent from the claims themselves, and discussed *only once* in the context of *one embodiment* disclosed in the specification. *See* ’764 Patent, 5:34-44. Defendant will likely point to the specification’s statement that “[t]he valves must be capable of opening and closing smoothly, rapidly, and with adequate precision to achieve fine control of hot and cold water supply” in attempt to support their importation of additional limitations into the claims and to argue the patentee acted as its own lexicographer. *Id.* However, this statement from the specification is clearly limited to a particular embodiment as evidenced by the opening sentence of the paragraph in which this language is found: “[i]n the embodiment of the invention illustrated in FIG. 1 . . .” *Id.* at 5:29. To act as its own lexicographer, a patentee must “clearly set forth a definition of the disputed claim term” other than its plain and ordinary

meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). The intrinsic evidence here contains no such explicit disavowal or redefinition. The Federal Circuit has “expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.” *Phillips*, 415 F.3d at 1323. Defendant’s attempt to confine this term to a particular embodiment is improper as the claim language itself is paramount. *See, e.g., Innogenetics*, 512 F.3d at 1370.

Further, extrinsic evidence indicates that “valve” has a commonly accepted meaning that is broader than Defendant’s proposed construction. For example, the *Dictionary of Mechanical Engineering* defines “valve” in relevant part as “[a] lid or cover to an aperture that opens a communication for a liquid or gas in one direction or closes it in another, or regulates the amount of flow, either manually or automatically.” DICTIONARY OF MECHANICAL ENGINEERING, 423 (4th Ed. 1996). Extrinsic evidence similarly does not support the limitations Defendant seeks to add here.

B. “fluid control valve”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“fluid control valve” (Claims 1, 26)	Valve which regulates the flow of a mixed fluid	Flow control valve Construed as: Electronically-controlled valve capable of opening and closing smoothly, rapidly, and with adequate precision to achieve fine control of flow

The Court should construe “fluid control valve” in accordance with its plain and ordinary meaning. As with “fluid supply control valve” *supra*, this term has a meaning that would be easily understood by a person of ordinary skill. For all the reasons discussed above with respect to “fluid supply control valve,” the Court should reject Defendant’s attempt to import the same limitations here to additionally narrow the meaning of “fluid control valve.” Defendant again adds the same

extraneous language around the words of the disputed term in an attempt to narrow the term's plain meaning.

Moreover, Defendant's arguments here are even weaker as the portion of the specification it apparently relies on to import the additional limitations is discussing the supply valves of a particular embodiment and their relation to adjustment of water temperature; it is not discussing fluid control valves. '764 patent, 5:42-47 ("The valves must be capable of opening and closing smoothly, rapidly, and with adequate precision to achieve fine control of hot and cold water supply. In this regard, the valve must be capable of being adjusted by very small increments to provide a sufficient degree of precision for user selection and adjustment of water temperature.")) (emphasis added). Additionally, Defendant's construction should be rejected because it would render dependent claim 3 superfluous, as claim 3 provides that "the flow control valve actuator is selected from an electric, pneumatic, hydraulic, or magnetically driven control motor." '764 patent, 20:34-36 (emphasis added). If the flow control valve actuator that operates the flow control valve is electric then that valve would arguably already be "electronically-controlled." "As [the Federal Circuit] has frequently stated, the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004). Again, the meaning of "fluid control valve" is manifest to both persons of ordinary skill and lay individuals alike; as such it should receive its plain and ordinary meaning.

Alternatively the Court should adopt Plaintiff's proposed construction because it is supported by the language of the claim itself and the specification. *See* '764 patent, Fig. 1, 8:17-20.

C. “remote system monitoring/control device”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“remote system monitoring/control device” (Claims 1, 4, 7)	Plain and ordinary meaning Or, in the alternative: device separate from the user interface that monitors/controls system functions and parameters from a different location than the user interface	A device at a distant location, not in the same room as the fluid delivery system

The Court should construe “remote system monitoring/control device” in accordance with its plain and ordinary meaning. Remote devices for monitoring and control have an easily understood meaning to lay persons and persons of ordinary skill alike.

Defendant’s proposed construction here essentially attempts to construe “remote” to mean “not in the same room as the fluid delivery system.” There is no suggestion in the claims themselves or the specification that “remote” was intended to be limited in this manner. To start, Defendant’s proposed construction would directly contradict that language of dependent claim 4 which provides that “the remote system monitoring/control device sends and receives signals to and from the system control means and/or system sensor(s) via an electrical, infrared (IR), radio frequency (RF), internet, intranet, direct connect remote access, satellite, or laser control connection means.” ’764 patent, 20:37-42. The specification further explains that “[i]n one embodiment, the [remote] control is similar to a standard IR television remote but incorporates an electronic display with a pull-down menu allowing the user to program various system functions and receive data in accordance with the system designs and methods of the invention.” ’764 patent, 13:3-7. Infrared remote controls operate using light transmission and thus require line of sight to the unit they are controlling, as even lay users of standard television remotes can attest. Infrared

communication would not be possible if Defendant's narrowing construction of "not in the same room as the fluid delivery system" was accepted and the scope of "remote system/monitoring/control device" would be improperly and artificially limited. Additionally, Defendant's proposed limiting construction of "distant" has a vague meaning itself and is not supported by the intrinsic evidence.

D. "user interface input"

Phrase to Be Construed	Plaintiff's Construction	Defendant's Construction
"user interface input" (Claim 7)	Plain and ordinary meaning Or, in the alternative: input to the user interface	See definition of: "User input means for . . ."

Defendant's proposed construction of this dependent claim term is unclear as Defendant points to the definition of a term for construction ("user input means for . . .") which Defendant has separately alleged is governed by § 112(f), yet Defendant has not alleged that "user interface input" is governed by § 112(f). To the extent Defendant is alleging this term is subject to § 112(f), Plaintiff directs the Court to its arguments in section IV. C and K ("remote system monitoring/control device . . ." and "user input means") *infra*. Nonetheless, the dependent claim element here explains that "the user interface input is a remote user input selected from a keypad, touchpad, joystick, roller, pen selector, voice input, or optical input integrated within the remote system monitoring/control device." '764 patent, 20:49-53. The meaning of this term is so plain that any construction would only serve to confuse the claim's intended meaning.

IV. Purported Means-Plus-Function Claims

The Patent Act permits applicants to draft claims in functional language by referring to a "means" or "step for" performing a function without reciting the structure, material, or acts in support thereof, i.e., in "means-plus-function" form. 35 U.S.C. § 112(f) (2012) (formerly 35 U.S.C.

§ 112, ¶6); *see Northrop Grumman Corp. v. Intel Corp.*, 325 F.3d 1346, 1350 (Fed. Cir. 2003). This allows an applicant to express a claim limitation through a functional description using the word “means,” but confines the structure of that “means” to the structure in the specification that corresponds to the claimed function and equivalents thereof. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347-48 (Fed. Cir. 2015). To determine whether an applicant has elected to make use of § 112(f), the Court first must examine the words of the claim itself. *Id.* at 1348. A claim that does not include the word “means” is presumed not to be subject to § 112(f). *Id.* The presumption can be overcome only by the movant demonstrating that “the claim term fails to ‘recite sufficiently definite structure’ or else recites ‘function without reciting sufficient structure for performing that function.’” *Id.* If the claim term, when read in context with the rest of the claim and the specification, connotes sufficiently definite structure or acts for performing the function, then it is not a means-plus-function term. *Id.* at 1349; *Masco Corp. v. United States*, 303 F.3d 1316, 1326-27 (Fed. Cir. 2002).

If the Court finds that a term is in means-plus-function format, it must first determine the claimed function and then identify the corresponding structure in the written description of the patent that performs that function. *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1332 (Fed. Cir. 2006). “[S]tructure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” *B. Braun Med. Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). For that reason, claim interpretation under § 112(f) does not permit incorporation of structure from the written description beyond that necessary to perform the claimed function. *See Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999); *Northrop Grumman Corp.*, 325 F.3d at 1352 (“A court may not import into the claim features that are unnecessary to perform

the claimed function. Features that do not perform the recited function do not constitute corresponding structure and thus do not serve as claim limitations.”) (citations omitted). In the event that the Court determines that § 112(f) applies to any of the claims below—which it should not—the Court should adopt Plaintiff’s identification of the function and corresponding structure.

A. “flow control valve actuator . . . for actuating opening and closure operations thereof”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
<p>“flow control valve actuator . . . for actuating opening and closure operations thereof” (Claims 1, 26)</p>	<p>Not a means-plus-function claim; plain and ordinary meaning; or</p> <p><u>Function</u>: opening or closing a valve</p> <p><u>Structure</u>: control motor, stepper motor, solenoid, electronic valve controller, electric, pneumatic, hydraulic, or magnetic driven motor</p>	<p><u>Function</u>: Actuating opening and closure operations of a flow control valve, which valve must be capable of opening and closing smoothly, rapidly, and with adequate precision to achieve fine control of flow, where the actuator moves a valve member in relationship to an associated valve seat to open or close the valve</p> <p><u>Structure</u>: Electric, pneumatic, hydraulic, or magnetically driven motor, or solenoid, and structural equivalents thereof</p>

“Flow control valve actuator” is not a means-plus-function element. The word “means” is not used in this claim element, nor any other “nonce” word, raising a presumption that § 112(f) does not apply. *See Williamson*, 792 F. 3d at 1348-49. To overcome that presumption, Defendant must demonstrate that “the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function.” *Id.* at 1349 (citation and internal quotations omitted); *accord Apex Inc. v. Raritan Comput., Inc.*, 325 F.3d 1364, 1373 (Fed. Cir. 2003). *Williamson* did not change that long-standing presumption; rather the opinion clarified and overruled certain language in a string of Federal Circuit opinions that characterized

the presumption as “strong.” *Williamson*, 792 F.3d at 1349. Defendant cannot overcome this presumption.

This term provides more than sufficient description for one of ordinary skill to understand the claimed structure. “Actuator” alone connotes structure, it is not a “nonce” word and its meaning would be readily apparent to a person of ordinary skill in the art. *See, e.g.*, DICTIONARY OF MECHANICAL ENGINEERING, 3 (4th ed. 1996)) (defining actuator as “[a]n electric, hydraulic, mechanical or pneumatic device, or combination of these to effect some predetermined linear or rotating movement.”) Far from being a mere placeholder, “actuator” defines a class of structures to a person of ordinary skill, similar to terms like screwdriver, clamp, and filter. *See generally Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996) (“[T]he fact that a particular mechanism . . . is defined in functional terms is not sufficient to convert a claim element containing that term into a ‘means for performing a specified function’ within the meaning of section 112(6).”). Further, the claims provide meaningful context and describe how the “actuator” interacts with other components (“operatively connected to said flow control valve for actuating opening and closure operations thereof”), which connotes sufficiently definite structure to one of skill in the art. *See, e.g.*, *Finjan, Inc., v. Proofpoint, Inc.*, 2015 WL 7770208, at *11 (N.D. Cal. Dec. 3, 2015) (“[H]ere, the intrinsic evidence establishes the structural character of ‘content processor’ through its interaction with the system’s other components.”). One of skill in the art would understand that the “fluid supply control valve actuator” was intended to claim an actuator that causes the connected valve to operate.

Defendant’s proposed function again seeks to improperly introduce the same limitations on the fluid control valve as it attempted to with its proposed construction for “fluid control valve.” For all of the reasons discussed above, these limitations should not be introduced here in a potential

construction of the function for this term, not to mention that Defendant's desired limitation of the "fluid control valve" has no place in defining the alleged function of the "flow control valve actuator." Defendant's proposed function goes far beyond any functional description contained in the claims and must be rejected.

B. "fluid supply control valve actuator . . . for actuating opening and closure operations thereof"

Phrase to Be Construed	Plaintiff's Construction	Defendant's Construction
"fluid supply control valve actuator . . . for actuating opening and closure operations thereof" (Claims 1, 26)	<p>Not a means-plus-function claim; plain and ordinary meaning; or</p> <p><u>Function</u>: valve actuation</p> <p><u>Structure</u>: control motor, stepper motor, solenoid, electronic valve controller, electric, pneumatic, hydraulic, or magnetic driven motor</p>	<p><u>Function</u>: Actuating opening and closure operations thereof of a fluid supply control valve, which valve must be capable of opening and closing smoothly, rapidly, and with adequate precision to achieve fine control of fluid supply, where the actuator moves a valve member in relationship to an associated valve seat to open or close the valve</p> <p><u>Structure</u>: Electric, pneumatic, hydraulic, or magnetically driven motor, or solenoid, and structural equivalents thereof</p>

Defendant cannot overcome the presumption that § 112(f) does not apply to "fluid supply control valve actuator," which does not include the word "means." This phrase connotes sufficient structure for all of the same reasons included above with respect to "flow control valve actuator," and Defendant's invitation to import limitations to the fluid supply valve via its proposed function here should be declined.

C. "remote system monitoring/control device operable for bidirectional data transmission and reception between said remote monitoring/control device and said system control means and/or system sensor(s) for remotely monitoring and controlling said one or more system functions or parameters,

wherein said remote monitoring/control device operates to remotely generate signals to remotely select said one or more system functions or parameters, and wherein said remote monitoring/control device also operates to receive signals from said system control means and/or said one or more system sensor(s) to remotely monitor said one or more system functions or parameters”

Phrase to Be Construed	Plaintiff's Construction	Defendant's Construction
<p>“remote system monitoring/control device operable for bidirectional data transmission and reception between said remote monitoring/control device and said system control means and/or system sensor(s) for remotely monitoring and controlling said one or more system functions or parameters, wherein said remote monitoring/control device operates to remotely generate signals to remotely select said one or more system functions or parameters, and wherein said remote monitoring/control device also operates to receive signals from said system control means and/or said one or more system sensor(s) to remotely monitor said one or more system functions or parameters”</p> <p>(Claim 1)</p>	<p>Not a means-plus-function claim; plain and ordinary meaning</p>	<p><u>Function</u>: (i) Bidirectional data transmission and reception between said remote monitoring/control device and said system control means and/or system sensor(s) for remotely monitoring and controlling said one or more system functions or parameters; (ii) remotely generate signals to remotely select said one or more system functions or parameters; and (iii) receive signals from said system control means and/or said one or more system sensor(s) to remotely monitor said one or more system functions or parameters</p> <p><u>Structure</u>: Personal computer, electronic day planner, or computerized building management system, and structural equivalents thereof</p>

As a preliminary matter, Defendant has selected a collection of elements that are cumbersome, disparate, and over-lengthy for any useful construction. At a minimum, Plaintiff contends that everything following the word “wherein” acts as a qualifying limitation for the preceding element with respect to which there is no disagreement articulated by Defendant. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008)

(explaining that courts need only resolve disputed meanings, not every element present in a patent's claims).

The remote system monitoring/control device should not be subject to means-plus-function treatment. First, the word “means” is not used in this claim element¹ (other than to refer to the antecedent “system control means”) and thus there is a presumption the term should not be construed as a means-plus-function term. *Williamson*, 792 F.3d at 1347-48. Defendant cannot rebut this presumption in light of the context and structure provided within the claim element itself and the preceding claim elements. This is similar to *Intellectual Ventures II*, which held that “distributed information access point” was not a means-plus-function term because the claims provided context and described how the “access point” interacted with other components via recitations of inputs, outputs, and operations of the access point. *Intellectual Ventures II LLC v. BITCO Gen'l Ins.*, 2016 WL 125594, *5-10 (E.D. Tex. Jan. 11, 2016) (citing *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1299 (Fed. Cir. 2014)).

Applying *arguendo*, means-plus-function treatment of this claim element, Defendant's proposed function under (i) appears to have been derived from the claim language itself, and is thus generally unobjectionable. However, Defendant's insistence on applying § 112(f) is apparently borne of its desire to argue indefiniteness by asserting that this claim element is directed to software and accordingly an algorithm must be disclosed. But the notion of sending, receiving, and generating signals is of such a basic nature to computer-related technology that no algorithm is required, especially in the context of the claimed technology. *See, e.g., In re Katz Interactive*

¹ “Operable for” should not be considered a mere nonce word similar to using “means” as it provides an adjectival qualifier for the preceding “control device.” *See Apex Inc.*, 325 F.3d at 1374 (holding that the use of adjectival qualifications can further identify sufficient structure to perform claimed functions).

Call Processing Patent Litig., 639 F.3d 1303, 1316 (Fed. Cir. 2011) (holding that general purpose computing components are sufficient structure for routine functions like “processing,” “receiving” and “storing.”). Here, the “remote system monitoring/control device” is simply receiving information transmitted from the “system control means and/or the system sensor(s)” and transmitting information back to the same. These are functions that “are coextensive with the structure disclosed” and thus an algorithm should not be required. *Id.* at 1316. Despite Defendant’s overbroad parsing of this claim term, the elements within it should receive their plain and ordinary meaning.

D. “data transfer means”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“data transfer means” (Claim 27)	<p>Not a means-plus-function claim; plain and ordinary meaning; or</p> <p><u>Function</u>: data transfer</p> <p><u>Structure</u>: networks; serial, parallel, modem, internet, or intranet computer transfer, or satellite, optical, infrared, ultrasound, radio frequency (RF), or cellular data transmission, and structural equivalents thereof</p>	<p><u>Function</u>: Transmit or download into the system</p> <p><u>Structure</u>: Serial, parallel, modem, internet, or intranet computer transfer, or satellite, optical, infrared, ultrasound, radio frequency (RF), or cellular data transmission, and structural equivalents thereof</p>

Reading “data transfer means” in context shows that this phrase is not a means-plus-function element for two independently sufficient reasons. First, even though the word “means” is used, no function is recited. “[A] limitation that uses the word ‘means’ but does not recite a function that corresponds to the means does not invoke § 112, ¶6.” *Lodsys, LLC v. Brother Int’l Corp.*, 2013 WL 2949959, at *39 (E.D. Tex. June 14, 2013) (quoting *Wenger Mfg., Inc. v. Coating Mach. Sys., Inc. and Vector Corp.*, 239 F.3d 1225, 1232 (Fed.Cir.2001)). Second, sufficient structure is plainly recited in the claim itself for “data transfer means” as show by the list of structures following

“selected from”:

27. The fluid delivery system of claim 26, wherein data stored by said external data storage and input means can be transmitted or downloaded into the system via one or more data transfer means selected from a serial or parallel port, modem, internet or intranet link, or satellite, optical, infrared, ultrasound, radio frequency (RF), or cellular data transmission.

’764 patent, 23: 1-7 (emphasis added). There can be no reasonable dispute that the terms in this list connote structure for “data transfer means” and can accomplish any function alleged to be present in this claim by Defendant. “Data transfer means” should be accorded its plain and ordinary meaning.

E. “external data storage and input means for storing and transferring data to said system control means to control one or more system function(s) or parameter(s)”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“external data storage and input means for storing and transferring data to said system control means to control one or more system function(s) or parameter(s)” (Claim 26)	<p>Not a means-plus-function claim; plain and ordinary meaning; or</p> <p><u>Function</u>: storing and transferring data</p> <p><u>Agreed Structure</u>: personal computer; electronic day planner; computerized building management system; external data processing device; personal data storage template; hard disk; floppy disk; zip or jaz drive; cd-ROM; magnetic or optical data storage devices</p>	<p><u>Function</u>: Storing and transferring data to said system control means to control one or more system function(s) or parameter(s)</p> <p><u>Agreed Structure</u>: personal computer; electronic day planner; computerized building management system; external data processing device; personal data storage template; hard disk; floppy disk; zip or jaz drive; cd-ROM; magnetic or optical data storage devices</p>

For the reasons set forth above in section IV. C and D above, “external data storage and input means” is not subject to § 112(f). This element provides the basic computing functions of data storage and transfer and thus the general structure disclosed in the claim and specification are sufficient to connote structure and rebut the application of § 112(f). *See Katz*, 639 F.3d at 1316.

To the extent the element is construed as subject to that provision, there is ample linkage of that function to corresponding structure, namely:

Yet another system input mode involves storage of input data on a personal information storage template 76 (e.g., a hard disk, floppy disk, zip or jaz drive, cd-rom, eeprom, or magnetic or optical data storage device such as a magnetized data storage card). Data stored on the personal information storage template can be transmitted or downloaded into the system via any of a number of well known data transfer means, e.g., through serial, parallel, modem, internet, or intranet computer transfer, or satellite, optical, infrared, ultrasound, radio frequency (RF), or cellular data transmission.

'764 patent, 13:41-51; 14:10-14 (“Another optional input mode allows for system input from an external data processing device 78, such as a personal computer, electronic day planner, or computerized building management system.”). Plaintiff has adopted Defendant’s articulation of the function since no real dispute exists with respect to it, though Plaintiff asserts the exercise is unnecessary since this element is not subject to means-plus-function treatment under governing case law.

F. “laser control connection means”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“laser control connection means” (Claim 4)	Not a means-plus-function claim; plain and ordinary meaning;	<u>Function:</u> <u>Structure:</u> This claim term fails to recite sufficiently definite structure and the '764 patent fails to disclose any structure corresponding to the “laser control connection means.” <i>Williamson v. Citrix Online, LLC</i> , 792 F.3d 1339, 1351 (Fed. Cir. 2015) (en banc). Therefore, the claim is indefinite.

This phrase is not subject to § 112(f), as “laser” alone connotes sufficient structure. Defendant apparently concedes that all other types of “control connection means” present in the list of Claim 4, e.g. electrical, infrared, or radio frequency “control connection means,” provide sufficient structure to avoid the application of § 112(f) to those phrases, but “laser” somehow fails

to.

“[I]n considering whether a claim term recites sufficient structure to avoid application of section 112 ¶ 6, we have not required the claim term to denote a specific structure. Instead, we have held that it is sufficient if the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure, even if the term covers a broad class of structures and even if the term identifies the structures by their function.”

Massachusetts Inst. of Tech. & Elecs. For Imaging, Inc. v. Abacus Software, 462 F.3d 1344, 1356 (Fed. Cir. 2006). Here, the meaning of “laser” would be readily apparent to a person of ordinary skill in the art as providing a sufficient degree of structure for a “control connection means.” In fact a person of ordinary skill, and many lay persons, would recognize that the word itself is an acronym for “light amplification by stimulated emission of radiation.” Additionally, potential examples of “laser control connection means” are found in everyday life in bar code readers, compact disc readers, and fiber optics. “Laser” and its implication in the context of control or connection is used in common parlance and would especially be understood to designate structure by a person of ordinary skill in the art.

Further, there is no function recited by this phrase. Indeed, Defendant fails to identify any alleged function in its proposed construction. As explained above, “a limitation that uses the word ‘means’ but does not recite a function that corresponds to the means does not invoke § 112, ¶6.” *Lodsys*, 2013 WL 2949959, at *39 (quoting *Wenger Mfg., Inc.*, 239 F.3d at 1232. “Laser control connection means” should be accorded its plain and ordinary meaning because it connotes sufficient structure and does not recite a function.

G. “memory means for entry and storage of user-defined temperature settings”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“memory means for entry and storage of user-defined temperature settings” (Claim 6)	Not a means-plus-function claim; plain and ordinary meaning; or	<u>Function:</u> Entry and storage of user-defined temperature settings in a nonvolatile memory device

Phrase to Be Construed	Plaintiff's Construction	Defendant's Construction
	<u>Function</u> : entry and storage of data <u>Structure</u> : computer memory	<u>Structure</u> : This claim term fails to recite sufficiently definite structure and the '764 patent fails to disclose any structure corresponding to the "memory means." <i>Williamson v. Citrix Online, LLC</i> , 792 F.3d 1339, 1351 (Fed. Cir. 2015) (en banc). Therefore, the claim is indefinite.

This phrase should be accorded its plain and ordinary meaning as "memory means" connotes sufficient structure to accomplish the function present in this claim element. The Federal Circuit has previously held that "memory means" described sufficient structure to rebut the presumption that § 112(f) applied and accorded the term its plain and ordinary meaning. *See Optimal Recreation Sols. LLP v. Leading Edge Techs., Inc.*, 6 F. App'x 873 (Fed. Cir. 2001). Specifically, in the context of a claim directed to a global positioning system for golf that recited a "memory means for storing the position of the golf cup", the Court concluded that "memory" had a "reasonably well understood meaning[] in [the relevant art] and [was] sufficient structure for accomplishing the function[] [of storing the position of the golf cup]." *Optimal*, 6 F. App'x at 877-78. The Federal Circuit has held that the similar phrase "system memory means" is so well known that it does *not* invoke means-plus-function treatment, since it denotes sufficient structure to a person or ordinary skill. *See TecSec, Inc. v. IBM Corp.*, 731 F.3d 1336, 1347 (Fed. Cir. 2013). "To those skilled in the art, a system memory is a specific structure that stores data." *Id.*

Here, the disputed term similarly does not require the "memory means" to perform an elaborate or peculiar function; it only requires the entry and storage of a simple type of data—temperature settings. The entry and storage of data is the most fundamental function of memory. Accordingly, as in *Optimal* and *TecSec*, the Court here should hold that the § 112(f) presumption

has been rebutted and the disputed term should receive its plain and ordinary meaning.

However, if the Court is inclined to construe this term as a means-plus-function limitation it should reject Defendant's proposed function and its assertion of indefiniteness. "Nonvolatile" should not be included in the function for this element because that word does not appear in the claim itself and the word connotes structure not function. *See Creo Products, Inc. v. Presstek, Inc.*, 305 F.3d 1337, 1344 (Fed. Cir. 2002) (explaining that "[t]he function of a means-plus-function limitation [] must come from the claim language itself.") Instead, "nonvolatile" should be incorporated into the corresponding structure as indicated by the portion of the specification where Defendant presumably derived that artificial limitation for the function. *See* '764 patent, 7:16-20 ("Digital sensors can thus be incorporated within the invention to function on a standalone basis (i.e., without requiring communication with a central processor), e.g., by providing for entry and storage of user-defined temperature settings in a nonvolatile memory.")) (emphasis added). Nonvolatile memory provides sufficient structure to allow entry and storage of user-defined temperature settings. To show indefiniteness, Defendant must "show by clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as her knowledge of the relevant art area." *Haemonetics Corp. v. Baxter Healthcare Corp.*, 607 F.3d 776, 783 (Fed. Cir. 2010). Defendant cannot do so here in the context of a straightforward claim limitation such as this.

H. "system control means for receiving signals from said thermosensor and user interface and for processing said signals to generate appropriate control signals to control said fluid supply control valve actuator(s) and said flow control valve actuator means to achieve programmed or user-selected set temperature, flow rate and volume at said system outlet"

Phrase to Be Construed	Plaintiff's Construction	Defendant's Construction
"system control means for receiving signals from said thermosensor and user	Not a means-plus-function claim; plain	<u>Function</u> : Receiving signals from said thermosensor and user interface and . . . processing said signals to

Phrase to Be Construed	Plaintiff's Construction	Defendant's Construction
interface and for processing said signals to generate appropriate control signals to control said fluid supply control valve actuator(s) and said flow control valve actuator means to achieve programmed or user-selected set temperature, flow rate and volume at said system outlet" (Claims 1, 26)	<p>and ordinary meaning; or</p> <p><u>Function</u>: receiving and processing signals</p> <p><u>Structure</u>: control unit; microprocessor, central processing unit, input-output interface, digital processor, controller, and memory</p>	<p>generate appropriate control signals to control said fluid supply control valve actuator(s) and said flow control valve actuator means to achieve programmed or user-selected set temperature, flow rate and volume at said system outlet</p> <p><u>Structure</u>: Standalone controller, single task control logic unit, microprocessor, digital processor control unit, or CPU, and structural equivalents thereof</p>

This claim element recites sufficient structure to rebut the application of § 112(f). First, the claimed inputs to, outputs from, and connections with the “system control means” provide a sufficient degree of structure from the perspective of a person of ordinary skill. The claim language of this element explicitly identifies the “system control means” as accepting input from the thermosensor (which “sense[s] an estimated present temperature of a mixed fluid”) and from the “user input means” (which itself accepted “a set temperature, flow rate, and volume”). ’764 patent, 19:63-65, 20:4-10. Further, this claim element goes on to explain that the “system control means” outputs “control signals to control said fluid supply control valve actuator(s) and said flow control valve actuator.” *Id.* at 20:10-12. As the Federal Circuit has consistently explained, “[s]tructure may also be provided by describing the claim limitation’s operation, such as its input, output, or connections. The limitation’s operation is more than just its function; it is how the function is achieved in the context of the invention.” *Intellectual Ventures II*, 2016 WL 125594, at *8 (citing *Apple Inc.*, 757 F.3d at 1299). The subject matter of the instant invention and functionality of this claim element are not so complex that more detail should be deemed required to convey sufficient

structure. Using the inputs described above, the “system control means” essentially instructs the “fluid supply control valve” and the “fluid control valve” to open or close to effectuate the set temperature, flow rate, or volume at the system outlet. Defendant’s proposed function for this claim element is overly expansive because it includes these structural elements—the inputs, outputs, and connections—within the proposed function.

Additionally, when read in light of the specification, a person of ordinary skill would understand “system control means” to describe structure such that the § 112(f) presumption is rebutted. For example, the specification describes a “system control unit 34 [that] provides for extensive data storage and management.” ’764 patent, 14:28-29 (emphasis added). This “system control unit” is described elsewhere, for example, as included below.

To generate and coordinate signals to the supply valves, the invention employs a control unit 34 which may be in the form of a stand alone controller, a single task control logic unit, or a microprocessor. The system shown in FIG. 1 incorporates a microprocessor control unit coupled with an array of system parameter and system function sensors, as described below, which provide input signals to the processor, which in turn processes the input signals based on feedback algorithms to generate control signals that regulate a variety of system operations, including opening and closing operations of the supply valves.

’764 patent, 6:34-44. The Federal Circuit in *Katz* held that general purpose computing components are sufficient structure for routine functions like “processing” and “receiving”, which are analogous to the “for processing” and “for receiving” limitations present in this claim element. *See Katz*, 639 F.3d at 1316.

If the Court does require multiple specific algorithms be disclosed to avoid an indefiniteness finding, there is ample language in the specification and claims describing such algorithms. Importantly, Federal Circuit precedent “does not require that a particular algorithm be identified if the selection of the algorithm or group of algorithms needed to perform the function in question would be readily apparent to a person of skill in the art.” *Aristocrat Techs. Australia*

Pty Ltd. v. Multimedia Games, Inc., 266 F. App'x 942, 947 (Fed. Cir. 2008). Sufficient structure can also be found by a statement in the written description that “known algorithms” could be used to provide the claimed function. *See id.* at 948. Defendant concedes that an algorithm is disclosed by the specification for controlling temperature, but then attempts to require the same level of descriptions present for temperature control to be present for volume and flow control. However, the specification includes an entire paragraph on the different types of algorithms that can be employed to “control system functions”:

With regard to control modes, a variety of feedback algorithms may be selected to control system functions (eg., valve operation), for example proportional, proportional plus integral, proportional plus integral plus derivative, feed forward, or other suitable control algorithm types. For controlling fluid temperatures, digital implementation of a proportional plus integral algorithm provides a preferred control mode, by integrating current temperature error as well as historical error to compute adjustments of hot and cold water supply valves 20, 22, thereby minimizing underdamping and overdamping. Other adaptive algorithms are known in the art and can be readily implemented within the devices and methods of the invention to achieve stable, consistent fluid output parameters, despite fluctuating system conditions such as irregularities in hot and cold fluid demand or supply.

See, e.g., '764 patent, 9:34-49 (emphasis added). Furthermore, the specifications provides other descriptions of how the “system control means” achieves its function.

[T]he control unit 34 digitally processes the signal from the system sensors to generate appropriate, user-informative and control signals to display or control system parameters and functions. For example, the control unit is specifically programmed to receive a signal from the temperature sensor and to compute therefrom an error value between the present mixed fluid temperature and a user-selected or pre-programmed target temperature for the mixed fluid. This and other digital processing functions within the invention are provided by a conventional microprocessor, preferably comprising a central processing unit (CPU) operably connected with an input/output (I/O) interface, random access memory (RAM), and read only memory (ROM) through a data bus. A variety of microprocessors with this basic design are known in the art and are readily adaptable for use within the invention.

'764 patent, 9:4-20. These descriptions are additionally sufficient to describe the necessary algorithm:

Precedent and practice permit a patentee to express that procedural algorithm in any understandable terms including as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure. In *Finisar* the court explained that the patent need only disclose sufficient structure for a person of skill in the field to provide an operative software program for the specified function. The amount of detail required to be included in claims depends on the particular invention and the prior art. In turn, the amount of detail that must be included in the specification depends on the subject matter that is described and its role in the invention as a whole, in view of the existing knowledge in the field of the invention.

Typhoon Touch Techs., Inc. v. Dell, Inc., 659 F.3d 1376, 1385 (Fed. Cir. 2011) (internal quotations and citations omitted). Accordingly, in light of the straightforward nature of the subject matter disclosed by the '764 patent, Defendant cannot show by clear and convincing evidence that this claim element is indefinite for failing to set forth an algorithm. The “system control means” element should be construed according to its plain and ordinary meaning.

I. “microprocessor comprising a central processing unit (CPU) operably connected with an input/output (I/O) inter-face, random access memory (RAM), and read only memory (ROM)”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“microprocessor comprising a central processing unit (CPU) operably connected with an input/output (I/O) inter-face, random access memory (RAM), and read only memory (ROM)” (Claim 10)	Not a means-plus-function claim; plain and ordinary meaning	<p><u>Function:</u> Receiving signals from said thermosensor and user interface and . . . processing said signals to generate appropriate control signals to control said fluid supply control valve actuator(s) and said flow control valve actuator means to achieve programmed or user-selected set temperature, flow rate and volume at said system outlet</p> <p><u>Structure:</u> This claim element is directed to software and the specification fails to “disclose an algorithm for performing the claimed function.” <i>Williamson v. Citrix Online, LLC</i>, 792 F.3d 1339, 1352 (Fed. Cir. 2015) (en banc).</p>

In light of at least the arguments set forth above with respect to section H (the “system control means” element), this dependent claim element should not subject to § 112(f) and should

be accorded its plain and ordinary meaning. Additionally, this claim element does not include the word “means” and explicitly includes additional structure for the “system control means”—namely a microprocessor which is further described as comprising a CPU, I/O interface, RAM, and ROM. ’764 patent, 20:66-21:3. These additional limitations clearly connote structure that, especially when coupled with the claimed inputs, outputs, and connections discussed above, accomplish the general computing functions of the “system control means.” Hence, Defendant has not met its burden to show by clear and convincing evidence that this claim element is indefinite.

J. “programmable digital processor which implements feedback control of one or more system parameters based on a control algorithm that is selected from a proportional, proportional plus integral, proportional plus integral plus derivative, or feed forward control algorithm”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“programmable digital processor which implements feedback control of one or more system parameters based on a control algorithm that is selected from a proportional, proportional plus integral, proportional plus integral plus derivative, or feed forward control algorithm” (Claim 13)	Not a means-plus-function claim; plain and ordinary meaning	<p><u>Function</u>: Receiving signals from said thermosensor and user interface and . . . processing said signals to generate appropriate control signals to control said fluid supply control valve actuator(s) and said flow control valve actuator means to achieve programmed or user-selected set temperature, flow rate and volume at said system outlet</p> <p><u>Structure</u>: This claim element is directed to software and the specification fails to “disclose an algorithm for performing the claimed function.” <i>Williamson v. Citrix Online, LLC</i>, 792 F.3d 1339, 1352 (Fed. Cir. 2015) (en banc).</p>

In light of at least the arguments set forth above with respect to section H (the “system control means” element), this dependent claim element should not subject to § 112(f) and should be accorded its plain and ordinary meaning. Additionally, this claim element does not include the word “means” and explicitly includes additional structure for the “system control means”—namely

a “programmable digital processor which implements feedback control” of system parameters based on an algorithm selected from a list of four types of algorithms. ’764 patent, 21:15-21. These additional limitations clearly connote structure that, especially when coupled with the claimed inputs, outputs, and connections discussed above, accomplish the function of the “system control means.” Defendant’s argument that this claim is indefinite for failure to recite an algorithm should be rejected.

K. “user input means for selecting a set temperature, flow rate and volume of fluid at said system outlet”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“user input means for selecting a set temperature, flow rate and volume of fluid at said system outlet” (Claims 1, 26)	<p>Not a means-plus-function claim; plain and ordinary meaning; or</p> <p><u>Function</u>: selecting a set temperature, flow rate or volume</p> <p><u>Agreed Structure</u>: external data processing device; keypad; user display; touchpad; joystick; roller; pen selector; voice input; optical input; image input coupled with optical recognition; menu-based input template; menu of selectable functions and parameters; control panel</p>	<p><u>Function</u>: Selecting a set temperature, flow rate and volume of fluid at said system outlet</p> <p><u>Agreed Structure</u>: external data processing device; keypad; user display; touchpad; joystick; roller; pen selector; voice input; optical input; image input coupled with optical recognition; menu-based input template; menu of selectable functions and parameters; control panel</p>

In the context of the claim language and the remainder of the intrinsic record, the “user input means” term connotes sufficiently definite structure to rebut the presumption that § 112(f) applies. The presumption is rebutted if “one of ordinary skill in the art would understand the claim with the functional language, in the context of the entire specification, to denote sufficiently definite structure or acts for performing the function.” *Free Stream Media Corp. v. Alphonso Inc.*,

2017 WL 1165578, at *5 (E.D. Tex. Mar. 29, 2017) (citing *Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1372 (Fed. Cir. 2015)). On its face, the claim language grounds the “user input means” in structure by reciting that it is included with a “user interface” that also includes a “user display means.” Included below are just some of the examples from the specification supporting the contention that a person of ordinary skill would consider “user input means” to connote structure.

In preferred aspects of the invention, a user interface 60 is provided which includes a user input device 62, for example a keypad.

The user input device 62 can receive user input via a variety of modes, including manual input (eg. via user operation of a keypad, touchpad, joystick, roller or pen selector), voice input, or optical input such as finger print or other image input coupled with optical recognition processing by the control unit 34).

The user input device 62 can be variably constructed and integrated with the control unit 34 to accommodate a variety of system designs and to allow for user selection or modification of a numerous system parameters and functions.

’764 patent, 9:50-51, 63-10:1, 10:8-11. The specification repeatedly discusses user input in the context of hardware devices and other structures. This term should receive its plain and ordinary meaning.

L. “domestic water supply system”

Phrase to Be Construed	Plaintiff’s Construction	Defendant’s Construction
“domestic water supply system” (Claim 24)	Not governed by 112(f); plain and ordinary meaning.	<p><u>Function:</u></p> <p><u>Structure:</u> Fig. 1, Fig. 3, Fig. 4, and equivalents thereof</p> <p>This claim term fails to recite sufficiently definite structure, and thus 35 U.S.C. § 112(6) applies. <i>Williamson v. Citrix Online, LLC</i>, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (en banc).</p>

This term does not a means-plus-function limitation and should be accorded its plain and

ordinary meaning. First, the word “means” is not used in the claims, raising a presumption that § 112(f) does not apply. *See Williamson*, 792 F. 3d at 1348-49. To overcome that presumption, Defendant must demonstrate that “the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function.” *Id.* Defendant cannot overcome that presumption here, where the meaning of “domestic water supply system” would be obvious to a person of ordinary skill in the art. In relevant part, the specification provides that

In one example schematically depicted in FIG. 1, a flow system of the invention is incorporated within a domestic plumbing system. More specifically, FIG. 1 depicts a domestic shower supply system 10 which receives fluid from a first and second fluid source, eg., a hot water source (arrow 12), and a cold water source (arrow 14).

’764 patent, 5:17-23, Fig. 1. A person of ordinary skill in the art, and even a lay person, would understand this term is generally referring to the hot and cold water supply lines present in almost every home in America. When read in context of the claims, “domestic water supply system” connotes structure and is not subject to § 112 (f).

V. CONCLUSION

For the foregoing reasons, Plaintiff respectfully requests the Court enter the claims constructions it proposes, and for such other and further relief as to which it may show itself justly entitled.

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Respectfully submitted,



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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document was filed electronically in compliance with Local Rule CV-5(a). As such, this document was served on all counsel who are deemed to have consented to electronic service. Local Rule CV-5(a)(3)(A). Pursuant to FED. R. Civ. P. 5(d) and Local Rule CV-5(d) and (e), all other counsel of record not deemed to have consented to electronic service were served with a true and correct copy of the foregoing by email, on this the 12th day of April, 2017.



Eric M. Albritton